

# British and U.S. scientists harness basic power of the universe

# ATOMIC BOMB IN USE AGAINST JAPS —TOTAL RUIN SOON

## Holiday folk soaked by freak storm

"Daily Mirror" Reporters

**T**HE Big Storm—thunder and torrential rain—which travelled the holiday spots on Sunday, hit London at lunch-time yesterday.

As it broke, holidaymakers in Brighton, only fifty miles away, lazed on the beach in blazing sunshine.

In London the millions who couldn't get off for the week-end were caught napping. Girls in gay summer dresses and men in sports shirts ran for shelter as the rain cascaded down.

Thunderstorms swept towns along the Straits of Dover during the afternoon and crowds ran from beaches for shelter.

Several storms were raging in adjoining areas at one time, and forked lightning was almost continuous, while thunder boomed like a cross-Channel gun bombardment. Within an hour, however, the sun was out again.

At Folkestone the rain fell in torrents, while the sun was shining brilliantly for a part of the time and a storm was at its height a few miles out in the Channel.

Thousands of young Londoners defied the threat of showers and went camping and hiking.

"We haven't one vacant bed in any hotel in the South of England," an official of the Youth Hostels' Association reported.

## Blast moved the clouds

This is what happened when the atomic bomb was first tested, according to a U.S. War Department expert last night: The bomb vaporised the steel tower from which it was fired and sent a massive cloud billowing into the stratosphere. There was a blinding flash of lightning and the whole area was brighter than daylight.

Then came a tremendous sustained roar and heavy pressure which knocked down two men outside the control tower ten thousand feet from the explosion.

Immediately afterwards a huge, multi-coloured, surging cloud boiled up to over 40,000 feet. Clouds in the path of it disappeared.

## One as destructive as five thousand-plane raids

**T**HE basic power of the universe—atomic energy—has been brought under human control in the greatest scientific revolution of all time and turned against the Japanese.

British and American scientists have produced an atomic bomb which contains more power than 20,000 tons of high explosive and is more than 2,000 times as effective as the biggest bomb ever before used in war.

Last night a great pall of smoke hid from Allied airmen the destruction the bomb has wrought on one of Japan's cities. And the enemy have been warned that it will be used to destroy their land entirely unless they capitulate.

First news of this tremendous advance, with its incalculable possibilities for the future of civilisation, were given by President Truman in a statement released from the White House last night.

"The force from which the sun draws its power has been loosed against those who brought war to the Far East," he declared.

The atomic bomb is so powerful that with it, one plane can be expected to do as much damage as five 1,000-plane RAF raids did to Berlin.

It is more destructive than three mass raids by Super-Forts.

"With it," said President Truman, "the United States is now prepared to obliterate more rapidly and completely every productive enterprise the Japanese have above ground in any city.

"We will destroy their docks, factories and communications. Let there be no mistake. We shall completely destroy Japan's power to make war.

"If they do not now accept our terms, they may expect a rain of ruin from the air the like of which has never been seen on this earth.

Target No. 1 for the atomic bomb was Hiroshima, fortified port with a population of 300,000, on Tokio's island, Honshu. The Japanese said merely that the fort was raided.

## AND NOW WHAT OF FUTURE?

**F**URTHER research into the new wonder bomb promises to lead to even greater developments in its use.

"It is now for Japan to realise what the consequences will be of an indefinite continuance of this terrible means of maintaining a rule of law in the world," Mr. Churchill's statement warned. "This revelation of the secrets of Nature, long mercifully withheld from man, should arouse the most solemn reflections in the minds and conscience of every human being capable of comprehension."

## May Serve Industry

"We must indeed pray that these awful agencies will be made to conduce to peace among the nations, and that instead of wreaking measureless havoc upon the entire globe they may become a perennial fountain of world prosperity."

Dr. E. Slade, research controller, Imperial Chemical Industries, said last night "We know now how to bottle it and release it. The next thing is to discover how to harness it so that it will serve industry."

Scientists are confident, Mr. Henry Stimson, U.S. War Secretary, said, that over a period of years the atom bomb would be developed into a still more powerful weapon.

Mr. Stimson, however, warned that much further research was needed to design machines for the conversion of atomic energy into useful power.

"How long this will take, no one can predict, but it will certainly be a period of many years," he said.

## SPLITTING THE ATOM

An atom is made up of minute electric particles—one or more making up a core, and others strung around the core like moons round a sun. Splitting the atom means knocking off some of the particles—and thereby releasing the terrific force locked up in the atom.

Other atomic particles are used as "bullets" shot by powerful electric currents.

ADVERTISER'S ANNOUNCEMENT

*Out of all  
proportion*



A little OXO  
enriches food out  
of all proportion  
to its size.

## They said 'it can't be done in time'

**P**ERFECTION of the atomic bomb meant so great a mastery of the unknown that when the war began no British scientist was prepared to predict that it would be ready for use by 1945.

But, said a statement by Mr. Churchill prepared before the election and issued by Mr. Attlee last night, its potentialities were so great that Britain decided that research should be carried on.

Responsibility for co-ordinating the work was placed in the hands of a committee of leading scientists presided over by Sir George Thomson.

There was a full interchange of ideas with America and such progress was made that by the summer of 1941 Sir George reported that there was a reasonable chance of success before the war ended.

The Chiefs of Staff recommended immediate action with the maximum priority.

Mr. W. A. Akers was released from Imperial Chemical Industries to take charge of a special division to direct the work.

And it was called, for purposes of secrecy, "The Directorate of Tube Alloys."

Under the chairmanship of Sir John Anderson a council composed of the president of the Royal Society, the chairman of the Scientific Advisory Committee of the Cabinet, the secre-

tary of the Department of Scientific and Industrial Research and Lord Cherwell.

The Minister of Aircraft Production at that time, Lord Brabazon, also served on the committee.

Under Mr. Akers there was also a technical committee on which sat the scientists who were directing the different sections of the work, and some others.

This committee was originally composed of Sir James Chadwick, Professor Peierls, Doctors Halban, Simon and Slade.

Later it was joined by Sir Charles Darwin and Professors Cockcroft, Oliphant and Feather.

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## PARATROOPERS SAVED US FROM ATOM BOMB

**B**ITAIN was saved from the atomic bomb by a British and Norwegian paratroop raid on a Norway factory in February, 1943.

For the atomic bomb was to have been Hitler's V3. The Germans had been working on it for a year before the Reich collapsed and their experts believe that, given a few months more, they would have brought it into operation.

The paratroop raid was made on Rjukan, when German output of "heavy water," used in making the bomb, had reached 11lb. a day.

Success of the raid was due

to the co-operation of a workman at the laboratories, who instead of raising an alarm allowed the raid to proceed.

The paratroopers, led by a 26-year-old Norwegian, Sverre Gaugen, eluded the sentries at the heavily guarded Vemork plant at Rjukan, slipped into a basement room and blew up 286 cells in which the "heavy water" was concentrated, thus destroying a six months' supply.

This raid followed another British-Norwegian paratroop attack earlier that winter.

Saboteurs and planes also took a hand. In March, 1943, Norwegian-speaking saboteurs

wearing British uniforms were reported to have been landed from a British plane and to have blown up part of the plant.

Then, in November, 1943, Fortresses and Liberators blasted it in a pinpoint attack again. Huge explosions were reported.

Later the Nazis had another plant in Norway but the RAF ended this venture and des-

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